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EXAMINER	
GILLIS, BRIAN J	

ART UNIT	PAPER NUMBER
2441	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/761,088	BLACK, CHUCK A.	
	Examiner	Art Unit	
	Brian J. Gillis	2441	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 December 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on December 27, 2010 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 34-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 34 recites the limitation "the overburdened device" in line 10. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 34, the claim limitation "analyzing the received solicited and unsolicited information" uses the phrase "means for" or "step for", but it is modified by some structure, material, or acts recited in the claim. It is unclear whether the recited structure, material, or acts are sufficient for performing the claimed function which would

preclude application of 35 U.S.C. 112, sixth paragraph, because the limitation recites sufficient structure to preclude the application of 35 U.S.C. 112, sixth paragraph.

If applicant wishes to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant is required to amend the claim so that the phrase "means for" or "step for" is clearly **not** modified by sufficient structure, material, or acts for performing the claimed function.

If applicant does **not** wish to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant is required to amend the claim so that it will clearly not be a means (or step) plus function limitation (e.g., deleting the phrase "means for" or "step for").

As for claims 35-39 which claim dependency from claim 34, these claims are rejected under 112 second paragraph per the rationale of claim 34.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 33 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claim is drawn to a "computer readable medium". The specification exemplifies the readable medium as including transmission or communication medium by not limiting the types of medium that may be used (specification, page 10, lines 1-10). Thus, the claim as a whole covers a transitory signal, which does not fall into any of the 4 categories of invention (process, machine, manufacture, or composition of matter).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-6, 8-16, 18, 19, and 21-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Manghirmalani et al (US Patent #5,819,028) in view of Buia et al (US PGPUB US2004/0078683) in view of Baekelmans et al (US Patent #7,080,141) in view of DeBettencourt et al (US PGPUB US2002/0042832).

Claim 1 discloses a network management station, comprising: a processor; a memory coupled to the processor; and program instructions provided to the memory and executable by the processor to: transmit a network management message to a device connected to the network management station over a network; collect response information from the device based on the network management message; receive unsolicited information from the device; analyze the response information and the unsolicited information according to a set of heuristics to determine that the device is overburdened; and reroute data traffic directed to the overburdened device to an alternate, underutilized network device. Manghirmalani et al teaches a network managing station is a computer which includes a processor and memory (figure 1, column 5, lines 20-37), the management station queries agents for data (column 5, lines 38-46), the requested data is collected (column 5, lines 38-46), the collected data which includes network utilization and error information is analyzed (column 6, lines 17-34),

and a measurement of if a device is overloaded is determined (column 9, lines 5-55). It fails to teach including information regarding device memory utilization and buffer utilization, and receiving unsolicited information from the device and reroute data traffic directed to the overburdened device to an alternate, underutilized network device. Buia et al teaches a network management station receives unsolicited information from connected devices (paragraph 25).

Manghirmalani et al and Buia et al are analogous art because they are both related to monitoring networks.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the receiving of unsolicited information feature in Buia et al with the system in Manghirmalani et al because efficiency and productivity of a network is controlled (Buia, paragraph 25).

Manghirmalani et al in view of Buia et al teaches the limitations of as recited above. It fails to teach including information regarding device memory utilization and buffer utilization and reroute data traffic directed to the overburdened device to an alternate, underutilized network device. Baekelmans et al teaches providing data regarding monitored memory usage or utilization which is known to include buffer utilization of network devices (column 6, lines 3-28).

Manghirmalani et al in view of Buia et al and Baekelmans et al are analogous art because they are both related to monitoring network information.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the monitoring parameters in Baekelmans et al with the system in

Manghirmalani et al in view of Buia et al because a network manager is enabled to proactively implement corrective measures before encountering a failure of the device (Baekelmans, column 2, lines 38-44).

Manghirmalani et al in view of Buia et al in view of Baekelmans et al teaches the limitations as recited above. It fails to teach rerouting data traffic directed to the overburdened device to an alternate, underutilized network device. DeBettencourt et al teach redirecting requests from a server that is overloaded to less used devices (paragraphs 42, 44, 138, and 149).

Manghirmalani et al in view of Buia et al in view of Baekelmans et al and DeBettencourt et al are analogous art because they are related to managing network servers based on monitored conditions.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the redirecting based on load in DeBettencourt et al with the system in Manghirmalani et al in view of Buia et al in view of Baekelmans et al because a system operator is provided with features and tools to coordinate the operation of multiple servers (DeBettencourt, paragraph 29).

Claim 2 discloses the network management station of claim 1, further including program instructions that execute to compare device processor utilization, device memory utilization, LAN utilization, errors, and trap information with one or more thresholds as parameters to the set of heuristics. Manghirmalani et al further teaches the load (column 9, lines 5-18), errors (column 9, line 56 – column 10, line 2), and trap information (column 6, lines 54-62) are monitored by the management station.

Claim 3 discloses the network management station of claim 1, wherein the set of heuristics include as parameters; processor utilization, statistics including discards, and frame check sequence (FCS) errors and number of broadcast, and traps, received as both solicited and unsolicited messages from the device. Manghirmalani et al further teaches the load (column 9, lines 5-18), errors (column 9, line 56 – column 10, line 2), trap information, and other device specific data is used to determine the health of the network (column 9, lines 1-5).

Claim 4 discloses the network management station of claim 1, further including program instructions that execute to analyzing unsolicited messages initiated from the device to a management program, the unsolicited messages selected from the group of: messages reporting successful events; messages reporting a traffic threshold; and messages reporting a non-functioning component on the device. Buia et al further teaches analyzes unsolicited information including data regarding the performance on the network (paragraph 58).

Claim 5 discloses the network management station of claim 1, further including program instructions that execute to collectively analyze all of the collected and received information, both solicited and unsolicited, in order to formulate a health measurement for the device and for the network. Manghirmalani et al further teaches the data collected is used to formulate a health score for the device and the network (column 6, lines 17-34, and column 7, lines 56-67).

Claim 6 discloses the network management station of claim 1, further including program instructions that execute to assign pre-selected weight values to the collected

and received information, both solicited and unsolicited as part of an applied heuristic and to use the weight values to provide the health measurement. Manghirmalani et al further teaches weights are added to the collected data (column 7, lines 56-67).

Claim 8 discloses the network management station of claim 1, further including program instruction that execute to implement different weight values to solicited and unsolicited information as parameters to the set of heuristics as suited to a particular type of network device. Manghirmalani et al further teaches the user may adjust the weights assigned to the received information (column 7, lines 56-67).

Claim 9 discloses the network management station of claim 1, further including program instruction that execute to implement different weight values to solicited and unsolicited information as parameters to the set of heuristics as suited to a particular type of network. Manghirmalani et al further teaches the user may adjust the weights assigned to the received information (column 7, lines 56-67).

Claim 10 discloses the network management station of claim 1, wherein the device and the station are connected over a LAN. Manghirmalani et al further teaches the network may be any type of network including a LAN (figure 1, column 5, lines 15-19).

Claim 11 discloses the network management station of claim 1, wherein the device and the station are connected over a wide area network (WAN). Manghirmalani et al further teaches the network may be any type of network including a WAN (figure 1, column 5, lines 15-19).

Claim 12 discloses a network management station, comprising: a processor; a memory coupled to the processor; and program instructions provided to the memory and executable by the processor to: poll a device, connected to the network management station over a network, with network management messages; receive memory utilization, buffer utilization, local area network (LAN) utilization, and cyclical redundancy checking (CRC) information in response to the polling and as unsolicited information initiated by and transmitted from the device; apply heuristics to the received memory utilization, buffer utilization, LAN utilization, and CRC information from the polling and unsolicited transmissions collectively to determine that the device is overburdened; and reroute data traffic directed to the overburdened device to an alternate, underutilized network device. Manghirmalani et al teaches a network managing station is a computer which includes a processor and memory (figure 1, column 5, lines 20-37), the management station queries agents for data (column 5, lines 38-46), load (column 9, lines 5-18), errors (column 9, line 56 – column 10, line 2), and trap information (column 6, lines 54-62) are received by the management station, the collected data which includes network utilization and error information is analyzed (column 6, lines 17-34), and a measurement of if a device is overloaded is determined (column 9, lines 5-55). It fails to teach including information regarding device memory utilization and buffer utilization, receiving unsolicited information from the device, and reroute data traffic directed to the overburdened device to an alternate, underutilized network device. Buia et al teaches a network management station receives unsolicited information from connected devices (paragraph 25).

Manghirmalani et al and Buia et al are analogous art because they are both related to monitoring networks.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the receiving of unsolicited information feature in Buia et al with the system in Manghirmalani et al because efficiency and productivity of a network is controlled (Buia, paragraph 25).

Manghirmalani et al in view of Buia et al teaches the limitations of as recited above. It fails to teach including information regarding device memory utilization and buffer utilization and reroute data traffic directed to the overburdened device to an alternate, underutilized network device. Baekelmans et al teaches providing data regarding monitored memory usage or utilization which is known to include buffer utilization of network devices (column 6, lines 3-28).

Manghirmalani et al in view of Buia et al and Baekelmans et al are analogous art because they are both related to monitoring network information.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the monitoring parameters in Baekelmans et al with the system in Manghirmalani et al in view of Buia et al because a network manager is enabled to proactively implement corrective measures before encountering a failure of the device (Baekelmans, column 2, lines 38-44).

Manghirmalani et al in view of Buia et al in view of Baekelmans et al teaches the limitations as recited above. It fails to teach rerouting data traffic directed to the overburdened device to an alternate, underutilized network device. DeBettencourt et al

teach redirecting requests from a server that is overloaded to less used devices (paragraphs 42, 44, 138, and 149).

Manghirmalani et al in view of Buia et al in view of Baekelmans et al and DeBettencourt et al are analogous art because they are related to managing network servers based on monitored conditions.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the redirecting based on load in DeBettencourt et al with the system in Manghirmalani et al in view of Buia et al in view of Baekelmans et al because a system operator is provided with features and tools to coordinate the operation of multiple servers (DeBettencourt, paragraph 29).

Claim 13 discloses the network management station of claim 12, further including program instructions which execute to display a visual indicator of the health of the device. Manghirmalani et al further teaches an indicator of the device is shown on a display (figure 2, and column 5, lines 51-63).

Claim 14 discloses the network management station of claim 13, further including program instructions which execute to display additional detail report information upon a selection of the visual indicator. Manghirmalani et al further teaches each devices individual status may also be displayed (figure 2, column 5, lines 51-63).

Claim 15 discloses the network management station of claim 12, further including program instructions that execute to register, as a parameter to the applied heuristics, that data traffic through a port of the device is being under utilized. Manghirmalani et al further teaches the load of a device is monitored and displayed (column 9, lines 5-55).

Claim 16 discloses the network management station of claim 15, further including program instructions that execute to register, as a parameter to the applied heuristics, that the data traffic through a port on another network device is overburdened. Manghirmalani et al further teaches the loads of the devices connected are monitored and displayed (column 9, lines 5-55).

Claim 18 discloses a method for network and network device monitoring, comprising: transmitting a network management message to a device; collecting response information from the device based on the network management message; receiving unsolicited information from the device; and analyzing the response information and the unsolicited information, which include information regarding device memory utilization, buffer utilization, local area network (LAN) utilization, and cyclical redundancy checking (CRC), according to a set of heuristics to determine that the device is overburdened; and reroute data traffic directed to the overburdened device to an alternate, underutilized network device. Manghirmalani et al teaches a management station queries agents for data (column 5, lines 38-46), the requested data is collected (column 5, lines 38-46), the collected data which includes network utilization and error information is analyzed (column 6, lines 17-34), and a measurement of if a device is overloaded is determined (column 9, lines 5-55). It fails to teach including information regarding device memory utilization and buffer utilization, and receiving unsolicited information from the device and reroute data traffic directed to the overburdened device to an alternate, underutilized network device. Buia et al teaches a network

management station receives unsolicited information from connected devices (paragraph 25).

Manghirmalani et al and Buia et al are analogous art because they are both related to monitoring networks.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the receiving of unsolicited information feature in Buia et al with the system in Manghirmalani et al because efficiency and productivity of a network is controlled (Buia, paragraph 25).

Manghirmalani et al in view of Buia et al teaches the limitations of as recited above. It fails to teach including information regarding device memory utilization and buffer utilization and reroute data traffic directed to the overburdened device to an alternate, underutilized network device. Baekelmans et al teaches providing data regarding monitored memory usage or utilization which is known to include buffer utilization of network devices (column 6, lines 3-28).

Manghirmalani et al in view of Buia et al and Baekelmans et al are analogous art because they are both related to monitoring network information.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the monitoring parameters in Baekelmans et al with the system in Manghirmalani et al in view of Buia et al because a network manager is enabled to proactively implement corrective measures before encountering a failure of the device (Baekelmans, column 2, lines 38-44).

Manghirmalani et al in view of Buia et al in view of Baekelmans et al teaches the limitations as recited above. It fails to teach rerouting data traffic directed to the overburdened device to an alternate, underutilized network device. DeBettencourt et al teach redirecting requests from a server that is overloaded to less used devices (paragraphs 42, 44, 138, and 149).

Manghirmalani et al in view of Buia et al in view of Baekelmans et al and DeBettencourt et al are analogous art because they are related to managing network servers based on monitored conditions.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the redirecting based on load in DeBettencourt et al with the system in Manghirmalani et al in view of Buia et al in view of Baekelmans et al because a system operator is provided with features and tools to coordinate the operation of multiple servers (DeBettencourt, paragraph 29).

Claim 19 discloses the method of claim 18, wherein the method further includes transmitting an SNMP message to the device. Manghirmalani et al further teaches SNMP is used to communicate with the device (column 6, lines 54-62).

Claim 21 discloses the method of claim 18, wherein the method further includes transmitting an ICMP ping to the device. Manghirmalani et al further teaches an ICMP ping is transmitted to the device (column 7, lines 4-6).

Claim 22 discloses the method of claim 18, wherein the method further includes receiving information using a telnet protocol. Manghirmalani et al further teaches any protocol which includes telnet may be used (column 5, lines 15-19).

Claim 23 discloses the method of claim 18, wherein the method further includes receiving traps from the device. Buia et al further teaches receiving traps from the devices (paragraph 25).

Claim 24 discloses the method of claim 18, wherein receiving unsolicited information includes unsolicited information relating to: processor utilization; and errors. Manghirmalani et al further teaches the load (column 9, lines 5-18), and errors (column 9, line 56 – column 10, line 2), are received by the management station.

Claim 25 discloses the method of claim 18, wherein receiving unsolicited information from the device includes receiving messages initiated from the device to a management program, including messages selected from the group of: messages reporting successful events; messages reporting a traffic threshold; and messages reporting a non-functioning component on the device. Buia et al further teaches analyzing unsolicited information including data regarding the performance on the network (paragraph 58).

Claim 26 discloses the method of claim 18, wherein the method further includes receiving a message, initiated from the device to a management program, which reports that a packet of data has been successfully sent from a port on the device. Buia et al further teaches receiving SNMP polling information which may include successful transmissions (paragraph 58).

Claim 27 discloses the method of claim 18, wherein the method further includes receiving a message, initiated from the device to a management program, which reports

that the device is over burdened with traffic and may crash. Buia et al further teaches receiving information regarding the performance of a device (paragraph 58).

Claim 28 discloses the method of claim 18, wherein the method further includes receiving a message, initiated from the device to a management program, which reports that a port on the device is not functioning. Buia et al further teaches receiving information regarding device configuration and performance information (paragraph 58).

Claim 29 discloses the method of claim 18, wherein analyzing according to a set of heuristics includes a heuristic having parameters selected from the group of: processor utilization; a link up/down status; a trap receipt; a discard receipt; and a FCS statistic. Manghirmalani et al further teaches the load (column 9, lines 5-18), errors (column 9, line 56 – column 10, line 2), trap information, and other device specific data is used to determine the health of the network (column 9, lines 1-5).

Claim 30 discloses a method for network and network device monitoring, comprising: polling a device with network management messages; receiving memory utilization, buffer utilization, local area network (LAN) utilization, and cyclical redundancy checking (CRC) information in response to the polling and as unsolicited information initiated by and transmitted from the device; applying heuristics to the received memory utilization, buffer utilization, LAN utilization, and CRC information from the polling and unsolicited transmissions collectively to determine a health of the network and that the device is overburdened; and rerouting data traffic directed to the overburdened device to an alternate, underutilized network device. Manghirmalani et al teaches a management station queries agents for data (column 5, lines 38-46), load (column 9,

lines 5-18), and errors (column 9, line 56 – column 10, line 2) are received by the management station, and the collected data which includes network utilization and error information is analyzed and a health score is determined based on a formula (column 6, lines 17-34), and a measurement of if a device is overloaded is determined (column 9, lines 5-55). It fails to teach including information regarding device memory utilization and buffer utilization, and receiving unsolicited information from the device and rerouting data traffic directed to the overburdened device to an alternate, underutilized network device. Buia et al teaches a network management station receives unsolicited information from connected devices (paragraph 25).

Manghirmalani et al and Buia et al are analogous art because they are both related to monitoring networks.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the receiving of unsolicited information feature in Buia et al with the system in Manghirmalani et al because efficiency and productivity of a network is controlled (Buia, paragraph 25).

Manghirmalani et al in view of Buia et al teaches the limitations of as recited above. It fails to teach including information regarding device memory utilization and buffer utilization and rerouting data traffic directed to the overburdened device to an alternate, underutilized network device. Baekelmans et al teaches providing data regarding monitored memory usage or utilization which is known to include buffer utilization of network devices (column 6, lines 3-28).

Manghirmalani et al in view of Buia et al and Baekelmans et al are analogous art because they are both related to monitoring network information.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the monitoring parameters in Baekelmans et al with the system in Manghirmalani et al in view of Buia et al because a network manager is enabled to proactively implement corrective measures before encountering a failure of the device (Baekelmans, column 2, lines 38-44).

Manghirmalani et al in view of Buia et al in view of Baekelmans et al teaches the limitations as recited above. It fails to teach rerouting data traffic directed to the overburdened device to an alternate, underutilized network device. DeBettencourt et al teach redirecting requests from a server that is overloaded to less used devices (paragraphs 42, 44, 138, and 149).

Manghirmalani et al in view of Buia et al in view of Baekelmans et al and DeBettencourt et al are analogous art because they are related to managing network servers based on monitored conditions.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the redirecting based on load in DeBettencourt et al with the system in Manghirmalani et al in view of Buia et al in view of Baekelmans et al because a system operator is provided with features and tools to coordinate the operation of multiple servers (DeBettencourt, paragraph 29).

Claim 31 discloses the method of claim 30, wherein the method further includes displaying a visual indicator of the determined health. Manghirmalani et al further

teaches an indicator of the device is shown on a display (figure 2, and column 5, lines 51-63).

Claim 32 discloses the method of claim 31, wherein the method further includes accessing additional report information by selecting the visual indicator. Manghirmalani et al further teaches each devices individual status may also be displayed (figure 2, column 5, lines 51-63).

Claim 33 discloses a computer readable medium having instructions for causing a device to perform a method, comprising: transmitting a network management message to a device; collecting response information from the device based on the network management message; receiving unsolicited information from the device; analyzing the response information and the unsolicited information, which include information regarding device memory utilization, buffer utilization, local are network (LAN) utilization, and cyclical redundancy checking (CRC), according to a set of heuristics to determine that the device is overburdened; and reroute data traffic directed to the overburdened device to an alternate, underutilized network device. Manghirmalani et al teaches a management station queries agents for data (column 5, lines 38-46), the requested data is collected (column 5, lines 38-46), the collected data which includes network utilization and error information is analyzed (column 6, lines 17-34), and a measurement of if a device is overloaded is determined (column 9, lines 5-55). It fails to teach including information regarding device memory utilization and buffer utilization, and receiving unsolicited information from the device and reroute data traffic directed to the overburdened device to an alternate, underutilized network device. Buia

et al teaches a network management station receives unsolicited information from connected devices (paragraph 25).

Manghirmalani et al and Buia et al are analogous art because they are both related to monitoring networks.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the receiving of unsolicited information feature in Buia et al with the system in Manghirmalani et al because efficiency and productivity of a network is controlled (Buia, paragraph 25).

Manghirmalani et al in view of Buia et al teaches the limitations of as recited above. It fails to teach including information regarding device memory utilization and buffer utilization and reroute data traffic directed to the overburdened device to an alternate, underutilized network device. Baekelmans et al teaches providing data regarding monitored memory usage or utilization which is known to include buffer utilization of network devices (column 6, lines 3-28).

Manghirmalani et al in view of Buia et al and Baekelmans et al are analogous art because they are both related to monitoring network information.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the monitoring parameters in Baekelmans et al with the system in Manghirmalani et al in view of Buia et al because a network manager is enabled to proactively implement corrective measures before encountering a failure of the device (Baekelmans, column 2, lines 38-44).

Manghirmalani et al in view of Buia et al in view of Baekelmans et al teaches the limitations as recited above. It fails to teach rerouting data traffic directed to the overburdened device to an alternate, underutilized network device. DeBettencourt et al teach redirecting requests from a server that is overloaded to less used devices (paragraphs 42, 44, 138, and 149).

Manghirmalani et al in view of Buia et al in view of Baekelmans et al and DeBettencourt et al are analogous art because they are related to managing network servers based on monitored conditions.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the redirecting based on load in DeBettencourt et al with the system in Manghirmalani et al in view of Buia et al in view of Baekelmans et al because a system operator is provided with features and tools to coordinate the operation of multiple servers (DeBettencourt, paragraph 29).

Claim 34 discloses a network management station, comprising: a processor; a memory coupled to the processor; means for receiving solicited and unsolicited information from a network device, the unsolicited information initiated by and transmitted from the network device, the solicited and unsolicited information including memory utilization, buffer utilization, local area network (LAN) utilization, and cyclical redundancy checking (CRC); means for analyzing the received solicited and unsolicited information collectively to determine that the network device is overburdened; and means for rerouting data traffic directed to the overburdened device to an alternate underutilized network device. Manghirmalani et al teaches a network managing station

is a computer which includes a processor and memory (figure 1, column 5, lines 20-37), the management station queries agents for data (column 5, lines 38-46), load (column 9, lines 5-18), and errors (column 9, line 56 – column 10, line 2) are received by the management station, the collected data which includes network utilization and error information is analyzed (column 6, lines 17-34), and a measurement of if a device is overloaded is determined (column 9, lines 5-55). It fails to teach including information regarding device memory utilization and buffer utilization, and receiving unsolicited information from the device and reroute data traffic directed to the overburdened device to an alternate, underutilized network device. Buia et al teaches a network management station receives unsolicited information from connected devices (paragraph 25).

Manghirmalani et al and Buia et al are analogous art because they are both related to monitoring networks.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the receiving of unsolicited information feature in Buia et al with the system in Manghirmalani et al because efficiency and productivity of a network is controlled (Buia, paragraph 25).

Manghirmalani et al in view of Buia et al teaches the limitations of as recited above. It fails to teach including information regarding device memory utilization and buffer utilization and reroute data traffic directed to the overburdened device to an alternate, underutilized network device. Baekelmans et al teaches providing data

regarding monitored memory usage or utilization which is known to include buffer utilization of network devices (column 6, lines 3-28).

Manghirmalani et al in view of Buia et al and Baekelmans et al are analogous art because they are both related to monitoring network information.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the monitoring parameters in Baekelmans et al with the system in Manghirmalani et al in view of Buia et al because a network manager is enabled to proactively implement corrective measures before encountering a failure of the device (Baekelmans, column 2, lines 38-44).

Manghirmalani et al in view of Buia et al in view of Baekelmans et al teaches the limitations as recited above. It fails to teach rerouting data traffic directed to the overburdened device to an alternate, underutilized network device. DeBettencourt et al teach redirecting requests from a server that is overloaded to less used devices (paragraphs 42, 44, 138, and 149).

Manghirmalani et al in view of Buia et al in view of Baekelmans et al and DeBettencourt et al are analogous art because they are related to managing network servers based on monitored conditions.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the redirecting based on load in DeBettencourt et al with the system in Manghirmalani et al in view of Buia et al in view of Baekelmans et al because a system operator is provided with features and tools to coordinate the operation of multiple servers (DeBettencourt, paragraph 29).

Claim 35 discloses the network management station of claim 34, wherein the means for receiving solicited information includes executing instructions to send a simple network management protocol (SNMP) query to the network device. Manghirmalani et al further teaches SNMP is used to communicate with the device (column 6, lines 54-62).

Claim 36 discloses the network management station of claim 34, wherein the means for receiving unsolicited information initiated by and transmitted from the network device includes executing program instructions to record the unsolicited information and to apply the unsolicited information as parameters in a heuristic analysis. Buia et al further teaches receiving and processing the unsolicited information from the devices (paragraph 25).

Claim 37 discloses the network management station of claim 36, wherein the heuristic analysis includes program instructions that execute to assign pre-selected weight values to the solicited and unsolicited information to provide the health measurement. Manghirmalani et al further teaches weights are added to the collected data (column 7, lines 56-67).

Claims 7, 17, 38, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Manghirmalani et al (US Patent #5,819,028) in view of Buia et al (US PGPUB US2004/0078683) in view of Baekelmans et al (US Patent #7,080,141) in view of DeBettencourt et al (US PGPUB US2002/0042832) as applied to claims 6, 16, and 37 above, and further in view of Rayes et al (US PGPUB US2005/0086502).

Claim 7 discloses the network management station of claim 6, further including program instructions that execute to initiate network actions, based on the health measurement, to avoid potential issues with the device and the network. Manghirmalani et al in view of Buia et al in view of Baekelmans et al in view of DeBettencourt et al teaches the limitations of claim 6 as recited above. It fails to teach initiating network actions, based on the health measurement, to avoid potential issues with the device and the network. Rayes et al teaches based on network health, users may be shutdown so others will not be affected (paragraph 38).

Manghirmalani et al in view of Buia et al in view of Baekelmans et al in view of DeBettencourt et al and Rayes et al are analogous art because they are both related to network health monitoring.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the management station intervening feature in Rayes et al with the system in Manghirmalani et al in view of Buia et al in view of Baekelmans et al in view of DeBettencourt et al because smooth running of the network for others is ensured (Rayes, paragraph 38).

Claim 17 discloses the network management station of claim 16, further including program instructions that execute to initiate an action based on the determined health of device in order to avoid a problem on the device and the network. Manghirmalani et al in view of Buia et al in view of Baekelmans et al in view of DeBettencourt et al teaches the limitations of claim 16 as recited above. It fails to teach initiating network actions, based on the health measurement, to avoid potential issues with the device and the

network. Rayes et al teaches based on network health, users may be shutdown so others will not be affected (paragraph 38).

Manghirmalani et al in view of Buia et al in view of Baekelmans et al in view of DeBettencourt et al and Rayes et al are analogous art because they are both related to network health monitoring.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the management station intervening feature in Rayes et al with the system in Manghirmalani et al in view of Buia et al in view of Baekelmans et al in view of DeBettencourt et al because smooth running of the network for others is ensured (Rayes, paragraph 38).

Claim 38 discloses the network management station of claim 37, further including program instructions that execute to initiate network actions based on the health measurement. Manghirmalani et al in view of Buia et al in view of Baekelmans et al in view of DeBettencourt et al teaches the limitations of claim 37 as recited above. It fails to teach initiating network actions, based on the health measurement, to avoid potential issues with the device and the network. Rayes et al teaches based on network health, users may be shutdown so others will not be affected (paragraph 38).

Manghirmalani et al in view of Buia et al in view of Baekelmans et al in view of DeBettencourt et al and Rayes et al are analogous art because they are both related to network health monitoring.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the management station intervening feature in Rayes et al with the

system in Manghirmalani et al in view of Buia et al in view of Baekelmans et al in view of DeBettencourt et al because smooth running of the network for others is ensured (Rayes, paragraph 38).

Claim 39 discloses the network management station of claim 38, further including program instruction that execute selectively modify one or more parameters in the heuristic analysis as suited to a particular type of network work and a particular type of network device. Manghirmalani et al further teaches the user may adjust the weights assigned to the received information (column 7, lines 56-67).

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Manghirmalani et al (US Patent #5,819,028) in view of Buia et al (US PGPUB US2004/0078683) view of Baekelmans et al (US Patent #7,080,141) in view of DeBettencourt et al (US PGPUB US2002/0042832) as applied to claim 19 above, and further in view of Shevenell et al (US PGPUB US2004/0122645).

Claim 20 discloses the method of claim 19, wherein the method further includes receiving return information contained in a management information base (MIB) of the device. Manghirmalani et al in view of Buia et al in view of Baekelmans et al in view of DeBettencourt et al teaches the limitations of claim 19 as recited above. It fails to teach receiving return information contained in a management information base (MIB) of the device. Shevenell et al teaches information regarding the device is received from the MIB of the device (paragraph 50).

Manghirmalani et al in view of Buia et al in view of Baekelmans et al in view of DeBettencourt et al and Shevenell et al are analogous art because they are both related to network management.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the receiving information from the MIB feature in Shevenell et al with the system in Manghirmalani et al in view of Buia et al in view of Baekelmans et al in view of DeBettencourt et al because the topology of the network may be determined by the received information (Shevenell, paragraph 50).

Response to Arguments

Applicant's arguments with respect to claims 1, 12, 18, 30, 33, and 34 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Macbeth et al (US Patent #7,581,003) teaches automatic recovery from fault conditions in network computer services.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Gillis whose telephone number is (571)272-7952. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing F. Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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